

-
- *Zworykin: Pioneer of Television.* Albert Abramson. Urbana & Chicago, IL: University of Illinois Press, 1995. 319 pages; \$29.56 cloth.

Vladimir K. Zworykin (1889-1982) was "the single most motivating force behind the

system of television that is in universal use today," writes Albert Abramson, a former television engineer turned historian. But no one – before Abramson – had ever written a biography of the inventor who helped develop two of the essential components of the all-electronic television system: the iconoscope (camera tube) and the kinescope (picture tube).

Abramson accomplishes the task by relying on interviews with Zworykin himself as well as several of Zworykin's former colleagues at Westinghouse and RCA. Zworykin also wrote a 105-page unpublished manuscript that helped Abramson track Zworykin's life from Russia where he was born into an upper-middle-class family to America where he sought refuge after the Bolshevik revolution.

Government records are another key source of information. By means of the Freedom of Information Act, Abramson gained access to extensive files on Zworykin which were the result of government fears of Soviet espionage during World War II. But much of Abramson's research is derived from hundreds of patents filed in the United States and abroad during the first half of this century that chronicle the scientific and engineering breakthroughs that led to a practical television system.

Abramson follows the many different trails that were pursued in developing television. Whereas most of the trails hit dead ends, Zworykin and his team – with the financial support of RCA chairman David Sarnoff – created a system that became the standard.

In many ways, *Zworykin: Pioneer of Television* is a revised and condensed version of Abramson's earlier work *The History of Television: 1880 to 1941*. Abramson's chronological approach is readily apparent in both books. However, without explanation some of the dates are changed from one book to the other. For example: Did Zworykin's first demonstration of his television system occur on 16 May or 17 May 1932? And was Zworykin's patent no. 2,141,059 granted on 20 December or 21 December 1938?

Such inconsistencies are minor, though, if the reader is an engineer or historian who wants to know the background story of how television developed from a "wild, visionary" idea of "electrical telescoping" that Zworykin learned from his physics professor in 1911 to a

fully functional, government-approved, all-electronic system thirty years later.

The audience for this book may be limited to engineers and historians, because other readers will probably have a difficult time understanding the descriptions of the various apparatus that were developed and tested to make television possible. The book needs a glossary. One cannot assume that readers are familiar with such terms as anodes, electrostatic focus, flying spot scanners, interlaced scanning, negative grid modulation, or willemite phosphor screens.

Abramson's book is rich in detail when it comes to patents and the technical development of television but falls short of telling readers much about Zworykin as a person. The book mentions the papers he delivered, the honors he received, the books he wrote, and the voyages he took; however, little is revealed about Zworykin's thoughts and feelings.

Zworykin led a fascinating life from a childhood in Tsarist Russia to the top of his profession as an inventor, engineer, scientist, and laboratory director. About the only negative thing said about the man, according to Abramson, was his habit of putting his name on every project that came out of his laboratory regardless of how much direct input he had.

Is this the complete story of Vladimir Zworykin? Perhaps not. But the book does serve a purpose: Zworykin has been added to the list of television pioneers – John Baird, Philo Farnsworth, Eduoard Belin, Charles Francis Jenkins, and Manfred von Ardenne – who have had books written about them.

TIM ENGLAND

Assistant Professor of Mass Communication
Southwest Texas State University